

SEQUENCE LISTING

<110> Harras, Marie
Donoho, Gregory
Turner, C. Alexander Jr.
Nehls, Michael
Friedrich, Glenn
Zambrowicz, Brian
Sands, Arthur T.

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Polynucleotides Encoding the Same

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<151> 1999-11-02

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Leu Arg Arg Lys Glu Arg Lys Leu Leu Glu Lys Cys Gly Leu Val Gln
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Ser Leu Thr Ser Ile Thr Leu Phe Ile Ile Pro Thr Val Ala Thr Ala
65          70          75          80
Val Trp Val Leu Ile His Thr Ser Leu Lys Leu Lys Leu Thr Ala Ser
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<212> PRT

<213> homo sapiens

<400> 6

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Ile	Lys	Met	Tyr	Thr	Trp	Glu	Lys	Pro	Phe	Ala	Lys	Ile	Ile	Glu	Asp
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Leu	Arg	Arg	Lys	Glu	Arg	Lys	Leu	Leu	Glu	Lys	Cys	Gly	Leu	Val	Gln
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Ser	Leu	Thr	Ser	Ile	Thr	Leu	Phe	Ile	Ile	Pro	Thr	Val	Ala	Thr	Ala
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Val	Trp	Val	Leu	Ile	His	Thr	Ser	Leu	Lys	Leu	Lys	Leu	Thr	Ala	Ser
			85					90					95		
Met	Ala	Phe	Ser	Met	Leu	Ala	Ser	Leu	Asn	Leu	Leu	Arg	Leu	Ser	Val
			100					105					110		
Phe	Phe	Val	Pro	Ile	Ala	Val	Lys	Gly	Leu	Thr	Asn	Ser	Lys	Ser	Ala
		115					120					125			
Val	Met	Arg	Phe	Lys	Lys	Phe	Phe	Leu	Gln	Glu	Ser	Pro	Val	Phe	Tyr
	130					135					140				
Val	Gln	Thr	Leu	Gln	Asp	Pro	Ser	Lys	Ala	Leu	Val	Phe	Glu	Glu	Ala
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Thr	Leu	Ser	Trp	Gln	Gln	Thr	Cys	Pro	Gly	Ile	Val	Asn	Gly	Ala	Leu
				165					170					175	
Glu	Leu	Glu	Arg	Asn	Gly	His	Ala	Ser	Glu	Gly	Met	Thr	Arg	Pro	Arg
			180					185					190		
Asp	Ala	Leu	Gly	Pro	Glu	Glu	Glu	Gly	Asn	Ser	Leu	Gly	Pro	Glu	Leu
		195					200					205			
His	Lys	Ile	Asn	Leu	Val	Val	Ser	Lys	Gly	Met	Met	Leu	Gly	Val	Cys
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Gly	Asn	Thr	Gly	Ser	Gly	Lys	Ser	Ser	Leu	Leu	Ser	Ala	Ile	Leu	Glu
225					230					235				240	

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				245					250					255		
Tyr	Val	Pro	Gln	Gln	Ala	Trp	Ile	Val	Ser	Gly	Asn	Ile	Arg	Glu	Asn	
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His	Cys	Cys	Ser	Leu	Asn	Arg	Asp	Leu	Glu	Leu	Leu	Pro	Phe	Gly	Asp	
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Met	Thr	Glu	Ile	Gly	Glu	Arg	Gly	Leu	Asn	Leu	Ser	Gly	Gly	Gln	Lys	
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Gln	Arg	Ile	Ser	Leu	Ala	Arg	Ala	Val	Tyr	Ser	Asp	Arg	Gln	Ile	Tyr	
				325					330					335		
Leu	Leu	Asp	Asp	Pro	Leu	Ser	Ala	Val	Asp	Ala	His	Val	Gly	Lys	His	
			340					345					350			
Ile	Phe	Glu	Glu	Cys	Ile	Lys	Lys	Thr	Leu	Arg	Gly	Lys	Thr	Val	Val	
		355					360					365				
Leu	Val	Thr	His	Gln	Leu	Gln	Tyr	Leu	Glu	Phe	Cys	Gly	Gln	Ile	Ile	
	370					375					380					
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Met	Gln	Lys	Lys	Gly	Lys	Tyr	Ala	Gln	Leu	Ile	Gln	Lys	Met	His	Lys	
				405					410					415		
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			420					425					430			
Pro	Lys	Val	Glu	Ser	Gln	Ala	Leu	Ala	Thr	Ser	Leu	Glu	Glu	Ser	Leu	
		435					440					445				
Asn	Gly	Asn	Ala	Val	Pro	Glu	His	Gln	Leu	Thr	Gln	Glu	Glu	Glu	Met	
	450					455					460					
Glu	Glu	Gly	Ser	Leu	Ser	Trp	Arg	Val	Tyr	His	His	Tyr	Ile	Gln	Ala	
465					470					475					480	
Ala	Gly	Gly	Tyr	Met	Val	Ser	Cys	Ile	Ile	Phe	Phe	Phe	Val	Val	Leu	
				485					490					495		
Ile	Val	Phe	Leu	Thr	Ile	Phe	Ser	Phe	Trp	Trp	Leu	Ser	Tyr	Trp	Leu	
			500					505					510			
Glu	Gln	Gly	Ser	Gly	Thr	Asn	Ser	Ser	Arg	Glu	Ser	Asn	Gly	Thr	Met	
		515					520					525				
Ala	Asp	Leu	Gly	Asn	Ile	Ala	Asp	Asn	Pro	Gln	Leu	Ser	Phe	Tyr	Gln	
	530					535					540					
Leu	Val	Tyr	Gly	Leu	Asn	Ala	Leu	Leu	Leu	Ile	Cys	Val	Gly	Val	Cys	
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Ser	Ser	Gly	Ile	Phe	Thr	Lys	Val	Thr	Arg	Lys	Ala	Ser	Thr	Ala	Leu	
				565					570					575		
His	Asn	Lys	Leu	Phe	Asn	Lys	Val	Phe	Arg	Cys	Pro	Met	Ser	Phe	Phe	
			580					585					590			
Asp	Thr	Ile	Pro	Ile	Gly	Arg	Leu	Leu	Asn	Cys	Phe	Ala	Gly	Asp	Leu	
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Glu	Gln	Leu	Asp	Gln	Leu	Leu	Pro	Ile	Phe	Ser	Glu	Gln	Phe	Leu	Val	
	610					615					620					
Leu	Ser	Leu	Met	Val	Ile	Ala	Val	Leu	Leu	Ile	Val	Ser	Val	Leu	Ser	
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Pro	Tyr	Ile	Leu	Leu	Met	Gly	Ala	Ile	Ile	Met	Val	Ile	Cys	Phe	Ile	
				645					650					655		
Tyr	Tyr	Met	Met	Phe	Lys	Lys	Ala	Ile	Gly	Val	Phe	Lys	Arg	Leu	Glu	
		660						665					670			
Asn	Tyr	Ser	Arg	Ser	Pro	Leu	Phe	Ser	His	Ile	Leu	Asn	Ser	Leu	Gln	
		675					680					685				

Gly	Leu	Ser	Ser	Ile	His	Val	Tyr	Gly	Lys	Thr	Glu	Asp	Phe	Ile	Ser		
690						695					700						
Gln	Phe	Lys	Arg	Leu	Thr	Asp	Ala	Gln	Asn	Asn	Tyr	Leu	Leu	Leu	Phe		
705						710				715					720		
Leu	Ser	Ser	Thr	Arg	Trp	Met	Ala	Leu	Arg	Leu	Glu	Ile	Met	Thr	Asn		
				725					730					735			
Leu	Val	Thr	Leu	Ala	Val	Ala	Leu	Phe	Val	Ala	Phe	Gly	Ile	Ser	Ser		
			740					745					750				
Thr	Pro	Tyr	Ser	Phe	Lys	Val	Met	Ala	Val	Asn	Ile	Val	Leu	Gln	Leu		
		755					760					765					
Ala	Ser	Ser	Phe	Gln	Ala	Thr	Ala	Arg	Ile	Gly	Leu	Glu	Thr	Glu	Ala		
	770					775					780						
Gln	Phe	Thr	Ala	Val	Glu	Arg	Ile	Leu	Gln	Tyr	Met	Lys	Met	Cys	Val		
785					790					795					800		
Ser	Glu	Ala	Pro	Leu	His	Met	Glu	Gly	Thr	Ser	Cys	Pro	Gln	Gly	Trp		
				805					810					815			
Pro	Gln	His	Gly	Glu	Ile	Ile	Phe	Gln	Asp	Tyr	His	Met	Lys	Tyr	Arg		
			820					825					830				
Asp	Asn	Thr	Pro	Thr	Val	Leu	His	Gly	Ile	Asn	Leu	Thr	Ile	Arg	Gly		
	835						840						845				
His	Glu	Val	Val	Gly	Ile	Val	Gly	Arg	Thr	Gly	Ser	Gly	Lys	Ser	Ser		
	850					855					860						
Leu	Gly	Met	Ala	Leu	Phe	Arg	Leu	Val	Glu	Pro	Met	Ala	Gly	Arg	Ile		
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Leu	Ile	Asp	Gly	Val	Asp	Ile	Cys	Ser	Ile	Gly	Leu	Glu	Asp	Leu	Arg		
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Ser	Lys	Leu	Ser	Val	Ile	Pro	Gln	Asp	Pro	Val	Leu	Leu	Ser	Gly	Thr		
			900					905					910				
Ile	Arg	Phe	Asn	Leu	Asp	Pro	Phe	Asp	Arg	His	Thr	Asp	Gln	Gln	Ile		
	915						920					925					
Trp	Asp	Ala	Leu	Glu	Arg	Thr	Phe	Leu	Thr	Lys	Ala	Ile	Ser	Lys	Phe		
	930					935					940						
Pro	Lys	Lys	Leu	His	Thr	Asp	Val	Val	Glu	Asn	Gly	Gly	Asn	Phe	Ser		
945					950					955					960		
Val	Gly	Glu	Arg	Gln	Leu	Leu	Cys	Ile	Ala	Arg	Ala	Val	Leu	Arg	Asn		
				965					970					975			
Ser	Lys	Ile	Ile	Leu	Ile	Asp	Glu	Ala	Thr	Ala	Ser	Ile	Asp	Met	Glu		
			980					985					990				
Thr	Asp	Thr	Leu	Ile	Gln	Arg	Thr	Ile	Arg	Glu	Ala	Phe	Gln	Gly	Cys		
	995					1000						1005					
Thr	Val	Leu	Val	Ile	Ala	His	Arg	Val	Thr	Thr	Val	Leu	Asn	Cys	Asp		
	1010					1015						1020					
His	Ile	Leu	Val	Met	Gly	Asn	Gly	Lys	Val	Val	Glu	Phe	Asp	Arg	Pro		
1025					1030					1035					1040		
Glu	Val	Leu	Arg	Lys	Lys	Pro	Gly	Ser	Leu	Phe	Ala	Ala	Leu	Met	Ala		
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			1060														

<210> 7

<211> 1488

<212> DNA

<213> homo sapiens

<400> 7

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60

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gggcttgtcc agagcctgac aagtataacc ttgttcatca tccccacagt ggccacagcg 240
gtctgggttc tcatccacac atccttaaag ctgaaactca cagcgtcaat ggccttcagc 300
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cctgtttttct atgtccagac attacaagac cccagcaaag ctctgggtctt tgaggaggcc 480
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<210> 8

<211> 496

<212> PRT

<213> homo sapiens

<400> 8

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 20          25          30
Ile Lys Met Tyr Thr Trp Glu Lys Pro Phe Ala Lys Ile Ile Glu Asp
 35          40          45
Leu Arg Arg Lys Glu Arg Lys Leu Leu Glu Lys Cys Gly Leu Val Gln
 50          55          60
Ser Leu Thr Ser Ile Thr Leu Phe Ile Ile Pro Thr Val Ala Thr Ala
 65          70          75          80
Val Trp Val Leu Ile His Thr Ser Leu Lys Leu Lys Leu Thr Ala Ser
 85          90          95
Met Ala Phe Ser Met Leu Ala Ser Leu Asn Leu Leu Arg Leu Ser Val
 100          105          110
Phe Phe Val Pro Ile Ala Val Lys Gly Leu Thr Asn Ser Lys Ser Ala
 115          120          125
Val Met Arg Phe Lys Lys Phe Phe Leu Gln Glu Ser Pro Val Phe Tyr
 130          135          140
Val Gln Thr Leu Gln Asp Pro Ser Lys Ala Leu Val Phe Glu Glu Ala
 145          150          155          160
Thr Leu Ser Trp Gln Gln Thr Cys Pro Gly Ile Val Asn Gly Ala Leu
 165          170          175
Glu Leu Glu Arg Asn Gly His Ala Ser Glu Gly Met Thr Arg Pro Arg
 180          185          190
Asp Ala Leu Gly Pro Glu Glu Glu Gly Asn Ser Leu Gly Pro Glu Leu

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195	200	205
His Lys Ile Asn Leu Val Val Ser Lys Gly Met Met Leu Gly Val Cys		
210	215	220
Gly Asn Thr Gly Ser Gly Lys Ser Ser Leu Leu Ser Ala Ile Leu Glu		
225	230	235
Glu Met His Leu Leu Glu Gly Ser Val Gly Val Gln Gly Ser Leu Ala		
245	250	255
Tyr Val Pro Gln Gln Ala Trp Ile Val Ser Gly Asn Ile Arg Glu Asn		
260	265	270
Ile Leu Met Gly Gly Ala Tyr Asp Lys Ala Arg Tyr Leu Gln Val Leu		
275	280	285
His Cys Cys Ser Leu Asn Arg Asp Leu Glu Leu Leu Pro Phe Gly Asp		
290	295	300
Met Thr Glu Ile Gly Glu Arg Gly Leu Asn Leu Ser Gly Gly Gln Lys		
305	310	315
Gln Arg Ile Ser Leu Ala Arg Ala Val Tyr Ser Asp Arg Gln Ile Tyr		
325	330	335
Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His		
340	345	350
Ile Phe Glu Glu Cys Ile Lys Lys Thr Leu Arg Gly Lys Thr Val Val		
355	360	365
Leu Val Thr His Gln Leu Gln Tyr Leu Glu Phe Cys Gly Gln Ile Ile		
370	375	380
Leu Leu Glu Asn Gly Lys Ile Cys Glu Asn Gly Thr His Ser Glu Leu		
385	390	395
Met Gln Lys Lys Gly Lys Tyr Ala Gln Leu Ile Gln Lys Met His Lys		
405	410	415
Glu Ala Thr Ser Val Phe Arg Cys Pro Met Ser Phe Phe Asp Thr Ile		
420	425	430
Pro Ile Gly Arg Leu Leu Asn Cys Phe Ala Gly Asp Leu Glu Gln Leu		
435	440	445
Asp Gln Leu Leu Pro Ile Phe Ser Glu Gln Phe Leu Val Leu Ser Leu		
450	455	460
Met Val Ile Ala Val Leu Leu Ile Val Ser Val Leu Ser Pro Tyr Ile		
465	470	475
Leu Leu Met Gly Ala Ile Ile Met Val Ile Cys Phe Ile Tyr Tyr Met		
485	490	495

<210> 9

<211> 1626

<212> DNA

<213> homo sapiens

<400> 9

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ccatttgcaa	aaatcattga	agacctaaga	aggaaggaaa	ggaagctatt	ggagaagtgc	180
gggcttggtcc	agagcctgac	aagtataacc	ttgttcatca	tccccacagt	ggccacagcg	240
gtctgggttc	tcatccacac	atccttaaag	ctgaaactca	cagcgtcaat	ggccttcagc	300
atgctggcct	ccttgaatct	ccttcggctg	tcagtgttct	ttgtgcctat	tgcagtcaaa	360
ggctctcacga	attccaagtc	tgcatgtgatg	aggttcaaga	agtttttcct	ccaggagagc	420
cctgttttct	atgtccagac	attacaagac	cccagcaaag	ctctgggtctt	tgaggaggcc	480
accttgatcat	ggcaacagac	ctgtcccggg	atcgtcaatg	gggcactgga	gctggagagg	540
aacggggcatg	cttctgaggg	gatgaccagg	cctagagatg	ccctcggggc	agaggaagaa	600
gggaacagcc	tggggccaga	gttgacacaag	atcaacctgg	tggtgtccaa	ggggatgatg	660
ttaggggtct	gcggcaacac	ggggagtggg	aagagcagcc	tggtgtcagc	catcctggag	720

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gccatcggtg tgttcaagag actggagaac tatagccggg ctcctttatt ctccacatc 1560
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<210> 10

<211> 542

<212> PRT

<213> homo sapiens

<400> 10

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20          25          30
Ile Lys Met Tyr Thr Trp Glu Lys Pro Phe Ala Lys Ile Ile Glu Asp
35          40          45
Leu Arg Arg Lys Glu Arg Lys Leu Leu Glu Lys Cys Gly Leu Val Gln
50          55          60
Ser Leu Thr Ser Ile Thr Leu Phe Ile Ile Pro Thr Val Ala Thr Ala
65          70          75          80
Val Trp Val Leu Ile His Thr Ser Leu Lys Leu Lys Leu Thr Ala Ser
85          90          95
Met Ala Phe Ser Met Leu Ala Ser Leu Asn Leu Leu Arg Leu Ser Val
100          105          110
Phe Phe Val Pro Ile Ala Val Lys Gly Leu Thr Asn Ser Lys Ser Ala
115          120          125
Val Met Arg Phe Lys Lys Phe Phe Leu Gln Glu Ser Pro Val Phe Tyr
130          135          140
Val Gln Thr Leu Gln Asp Pro Ser Lys Ala Leu Val Phe Glu Glu Ala
145          150          155          160
Thr Leu Ser Trp Gln Gln Thr Cys Pro Gly Ile Val Asn Gly Ala Leu
165          170          175
Glu Leu Glu Arg Asn Gly His Ala Ser Glu Gly Met Thr Arg Pro Arg
180          185          190
Asp Ala Leu Gly Pro Glu Glu Glu Gly Asn Ser Leu Gly Pro Glu Leu
195          200          205
His Lys Ile Asn Leu Val Val Ser Lys Gly Met Met Leu Gly Val Cys
210          215          220
Gly Asn Thr Gly Ser Gly Lys Ser Ser Leu Leu Ser Ala Ile Leu Glu
225          230          235          240
Glu Met His Leu Leu Glu Gly Ser Val Gly Val Gln Gly Ser Leu Ala
245          250          255
Tyr Val Pro Gln Gln Ala Trp Ile Val Ser Gly Asn Ile Arg Glu Asn

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	260		265		270										
Ile	Leu	Met	Gly	Gly	Ala	Tyr	Asp	Lys	Ala	Arg	Tyr	Leu	Gln	Val	Leu
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His	Cys	Cys	Ser	Leu	Asn	Arg	Asp	Leu	Glu	Leu	Leu	Pro	Phe	Gly	Asp
	290					295					300				
Met	Thr	Glu	Ile	Gly	Glu	Arg	Gly	Leu	Asn	Leu	Ser	Gly	Gly	Gln	Lys
305					310					315					320
Gln	Arg	Ile	Ser	Leu	Ala	Arg	Ala	Val	Tyr	Ser	Asp	Arg	Gln	Ile	Tyr
				325					330					335	
Leu	Leu	Asp	Asp	Pro	Leu	Ser	Ala	Val	Asp	Ala	His	Val	Gly	Lys	His
			340					345					350		
Ile	Phe	Glu	Glu	Cys	Ile	Lys	Lys	Thr	Leu	Arg	Gly	Lys	Thr	Val	Val
	355					360						365			
Leu	Val	Thr	His	Gln	Leu	Gln	Tyr	Leu	Glu	Phe	Cys	Gly	Gln	Ile	Ile
	370					375					380				
Leu	Leu	Glu	Asn	Gly	Lys	Ile	Cys	Glu	Asn	Gly	Thr	His	Ser	Glu	Leu
385					390					395					400
Met	Gln	Lys	Lys	Gly	Lys	Tyr	Ala	Gln	Leu	Ile	Gln	Lys	Met	His	Lys
				405					410					415	
Glu	Ala	Thr	Ser	Val	Phe	Arg	Cys	Pro	Met	Ser	Phe	Phe	Asp	Thr	Ile
			420					425					430		
Pro	Ile	Gly	Arg	Leu	Leu	Asn	Cys	Phe	Ala	Gly	Asp	Leu	Glu	Gln	Leu
	435						440					445			
Asp	Gln	Leu	Leu	Pro	Ile	Phe	Ser	Glu	Gln	Phe	Leu	Val	Leu	Ser	Leu
	450					455					460				
Met	Val	Ile	Ala	Val	Leu	Leu	Ile	Val	Ser	Val	Leu	Ser	Pro	Tyr	Ile
465					470					475					480
Leu	Leu	Met	Gly	Ala	Ile	Ile	Met	Val	Ile	Cys	Phe	Ile	Tyr	Tyr	Met
				485					490					495	
Met	Phe	Lys	Lys	Ala	Ile	Gly	Val	Phe	Lys	Arg	Leu	Glu	Asn	Tyr	Ser
			500					505					510		
Arg	Ser	Pro	Leu	Phe	Ser	His	Ile	Leu	Asn	Ser	Leu	Gln	Gly	Leu	Ser
	515						520					525			
Ser	Ile	His	Val	Tyr	Gly	Lys	Thr	Glu	Asp	Phe	Ile	Ser	Gln		
	530					535					540				

<210> 11

<211> 2700

<212> DNA

<213> homo sapiens

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<211> 1379

<212> PRT

<213> homo sapiens

<400> 18

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Cys Ile Lys Lys Thr	Leu Arg Gly Lys Thr	Val Val Leu Val Thr His		
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Gly Lys Tyr Ala Gln	Leu Ile Gln Lys Met	His Lys Glu Ala Thr Ser		
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Asp Met Leu Gln Asp	Thr Ala Lys Ile Ala	Glu Lys Pro Lys Val Glu		
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Val Pro Glu His Gln	Leu Thr Gln Glu Glu	Glu Met Glu Glu Gly Ser		
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Leu Ser Trp Arg Val	Tyr His His Tyr Ile	Gln Ala Ala Gly Gly Tyr		
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Met Val Ser Cys Ile	Ile Phe Phe Phe Val	Val Val Leu Ile Val Phe Leu		
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Gly Thr Asn Ser Ser	Arg Glu Ser Asn Gly	Thr Met Ala Asp Leu Gly		
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865	870	875	880	
Phe Thr Lys Val Thr	Arg Lys Ala Ser Thr	Ala Leu His Asn Lys Leu		
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Phe Asn Lys Val Phe	Arg Cys Pro Met Ser	Phe Phe Asp Thr Ile Pro		

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<212> PRT

<213> homo sapiens

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<212> DNA

<213> homo sapiens

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<213> homo sapiens

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